WO 2005/016796 PCT/GB2004/003474

Claims:

20

- An apparatus for storing and dispensing of a plurality of items of stock comprising a plurality of storage regions and a dispensing station, wherein said storage regions are arranged to circulate around a continuous path such that each storage region is periodically brought into alignment with the dispensing station so as to allow items to be removed from the
 storage region at the dispensing station.
 - 2. Apparatus as claimed in claim 1 wherein the storage regions are physically delimited.
- 15 3. Apparatus as claimed in claim 1 or 2 wherein the storage regions comprise at least one shelf.
 - 4. Apparatus as claimed in claim 3 wherein said shelf or shelves is/are reconfigurable in width and/or height.
 - 5. Apparatus as claimed in any preceding claim wherein the dispensing station comprises means for removing items from the storage regions.
- 25 6. Apparatus as claimed in claim 5 wherein said means comprises for removing items is arranged to operating by a pushing action.
- 7. Apparatus as claimed in claim 5 wherein said means comprises for removing items is arranged to operating by a pulling action.
- Apparatus as claimed in claim 7 comprising a claw arranged to hook over and pull an item off the storage
 region.
 - 9. Apparatus as claimed in claim 7 comprising a

WO 2005/016796 PCT/GB2004/003474
- 19 -

suction probe arranged to generate a reduced pressure between its end face and a side of the item to allow said item to be pulled off by retracting the probe.

- 5 10. Apparatus as claimed in any preceding claim wherein said dispensing means is adapted to be able to remove a plurality of items simultaneously from a single storage region.
- 10 11. Apparatus as claimed in any preceding claim wherein the dispensing station comprises a dispensing chute for receiving items which are removed from the storage region at the dispensing station.
- 15 12. Apparatus as claimed in any preceding claim adapted to circulate said storage regions only when required.
 - 13. Apparatus as claimed in claim 12 adapted to halt said circulation when a desired storage region is aligned with a correct dispensing station or loading point.

20

- 14. An automated stock storage and retrieval system comprising stock transfer means for transferring items of stock from an input area to a storage area and for subsequently retrieving said items of stock, the apparatus further comprising an apparatus for storing and dispensing of a plurality of items of stock comprising a plurality of storage regions and a
- dispensing station, wherein said storage regions are arranged to circulate around a continuous path such that each storage region is periodically brought into alignment with the dispensing station so as to allow items to be removed from the storage region at the
- 35 dispensing station; wherein the stock transfer means is arranged selectively to load items onto said circulating storage regions.

WO 2005/016796 PCT/GB2004/003474

15. An apparatus or system as claimed in any preceding claim wherein the circulating storage apparatus is configured to allow items to be placed manually in its storage regions.

5

20

25

30

- 20 -

- 16. An apparatus or system as claimed in any preceding claim comprising more than one dispensing station.
- 10 17. A method of storing and dispensing a plurality of items of stock comprising placing said items of stock in a plurality of storage regions and circulating said storage regions around a continuous path such that each storage region is periodically brought into alignment with a dispensing station and removing items from the storage region at the dispensing station.
 - 18. A method as claimed in claim 17 comprising pushing said items from said storage regions at the dispensing station.
 - 19. A method as claimed in claim 17 comprising pulling said items from said storage regions at the dispensing station.
 - 20. A method as claimed in claim 19 comprising generating a reduced pressure between an end face of a suction probe a side of an item and pulling said item off by retracting the probe.
 - 21. A method as claimed in any of claims 17 to 20 comprising removing a plurality of items simultaneously from a single storage region.
 - 35 22. A method as claimed in any of claims 17 to 21 circulating said storage regions only when required.

WO 2005/016796 PCT/GB2004/003474

- 21 -

23. A method as claimed in claim 22 comprising circulating the storage regions until a desired storage region is aligned with a correct dispensing station or loading point.

5